

# National Water Industry Cluster

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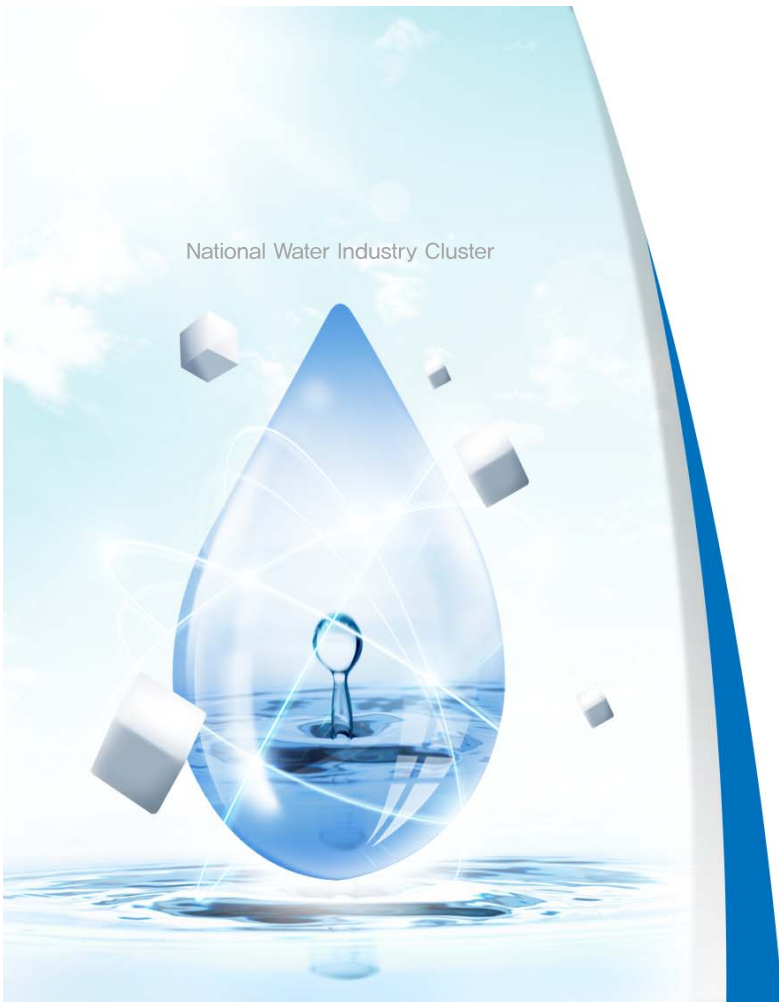
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National Water Industry Cluster

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National Water Industry Cluster



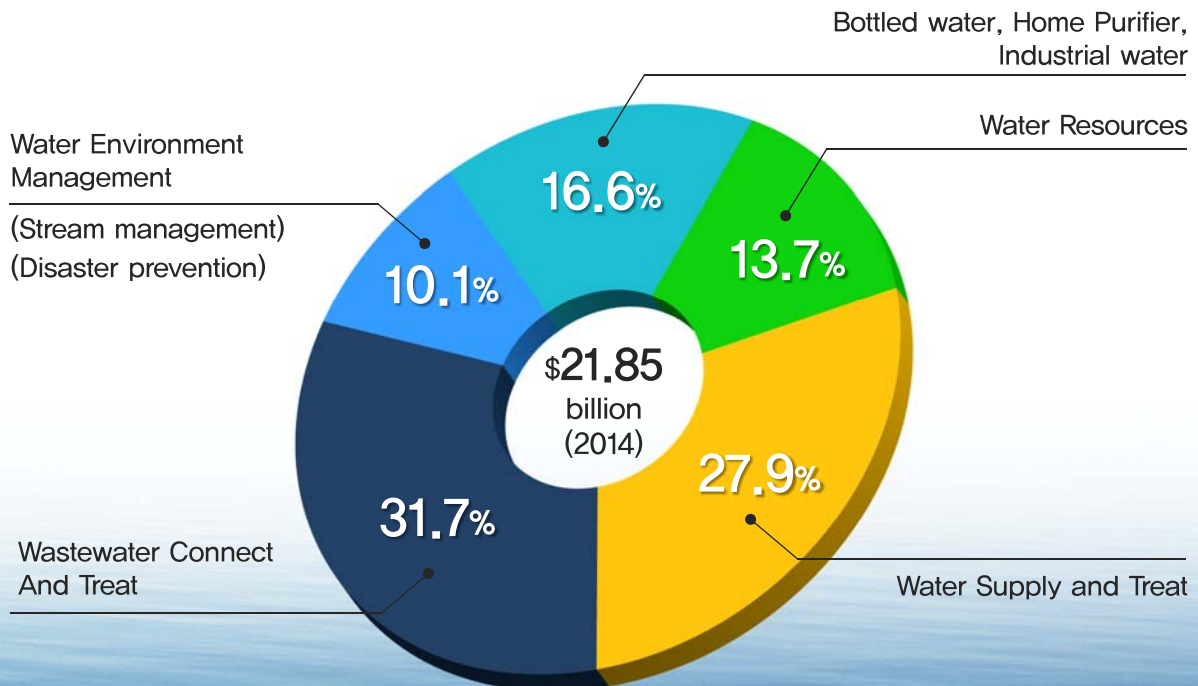
# Introduction

## Background

National Water Industry Cluster  
Introduction



### Water Industry of Korea



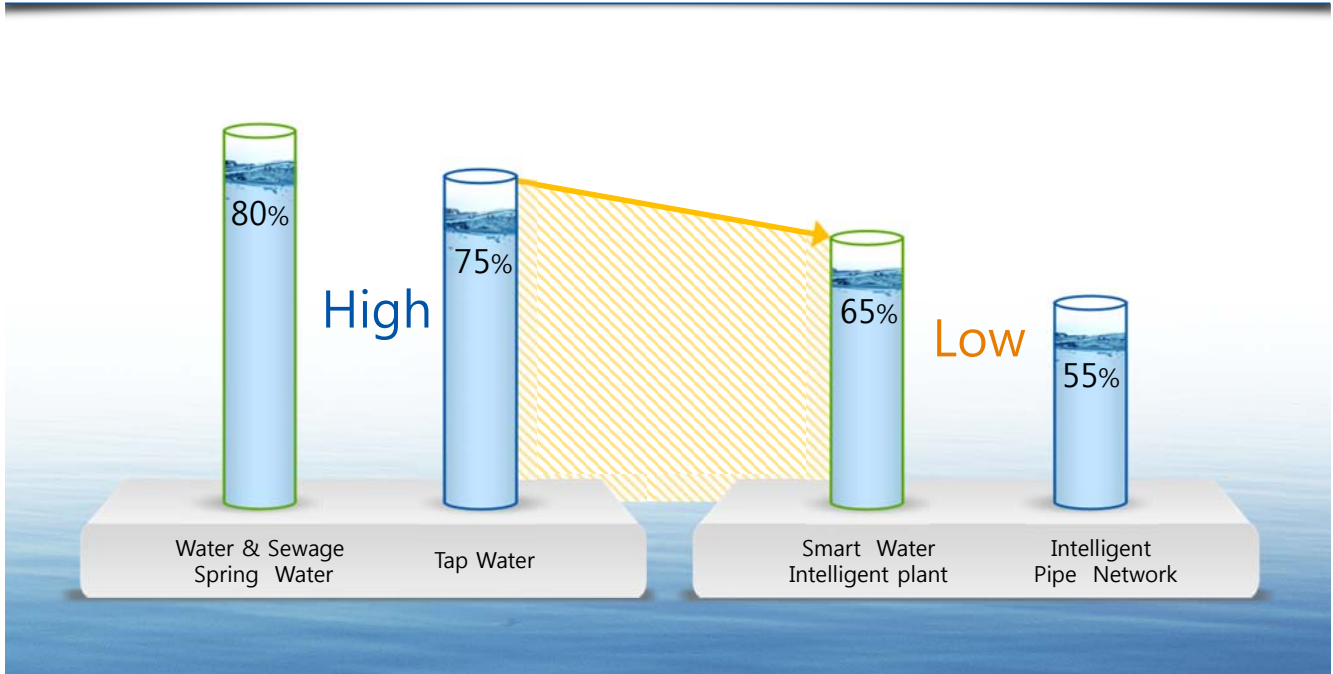
# Background

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Introduction



## Water Tech. Level : Korea VS Advanced Countries

Water&Wastewater, Desalination 75~80% & High-Tech Field 55~65%  
Needed **Strong Water Technology Fostering** to be competitive in Global Market

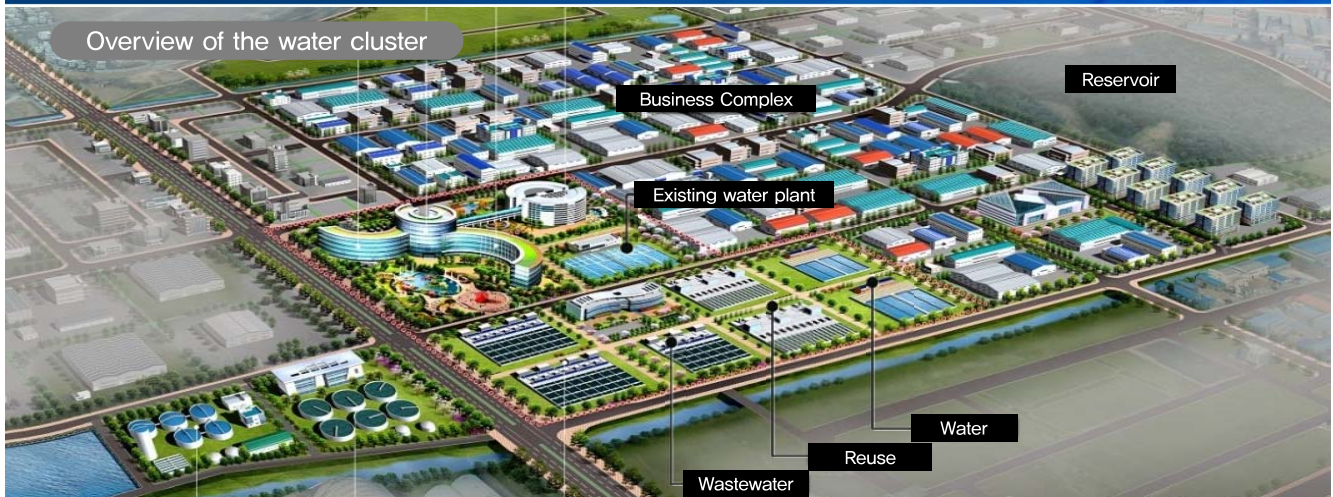


# Background

National Water Industry Cluster  
Introduction



Overview of the water cluster



## Commercialization & Having references

### Ready for Exporting to Overseas Market

- Support to certifications & verifications and to have references
- Supporting R&D and Human resources
- Creating synergy effect to water-associated sector (water/Wastewater, advanced treatment)



## Purpose



- Establishing a base for technical development and commercialization through gathering stakeholders in each water sectors
- Improving national water industry environment & international competitiveness

## Objectives

- Setting One-stop total solution infrastructure for technical development, testing and marketing
- Developing collaborative works with existing Daegu National Industrial complex



# Introduction



## Brief Information



Location

▶ Within **Daegu National Industrial Complex**(240km far from Seoul)



Gross area

▶ 645thous.m<sup>2</sup>



Budget

▶ 313.7 Billion KRW (270 Million US\$)



Period

▶ 2015 ~ 2018



Core Facilities

- **Test-bed** : Having references for developed technology from the cluster
- **Supporting Facilities** : R&D Center, Water campus, Global business center
- **Business Complex** : Water Companies' office and factory complex



## Facilities

	Facilities	Functions	Gross Area(m2)
Test-bed	<ul style="list-style-type: none"> <li>Water·Wastewater·Reuse TB</li> </ul>	Verification & Certification for the products and technologies  Having references	80,961(13%)
Supporting Facilities	<ul style="list-style-type: none"> <li>Water R&amp;D center</li> <li>Global business center</li> <li>Water campus</li> </ul>	Designing R&D policy and cooperative research  Training and providing professional manpower  Supporting marketing strategy	64,248(10%)
Business Complex	<ul style="list-style-type: none"> <li>Water companies' office and factory</li> </ul>	Manufacturing Exporting products and technologies	503,870(77%)

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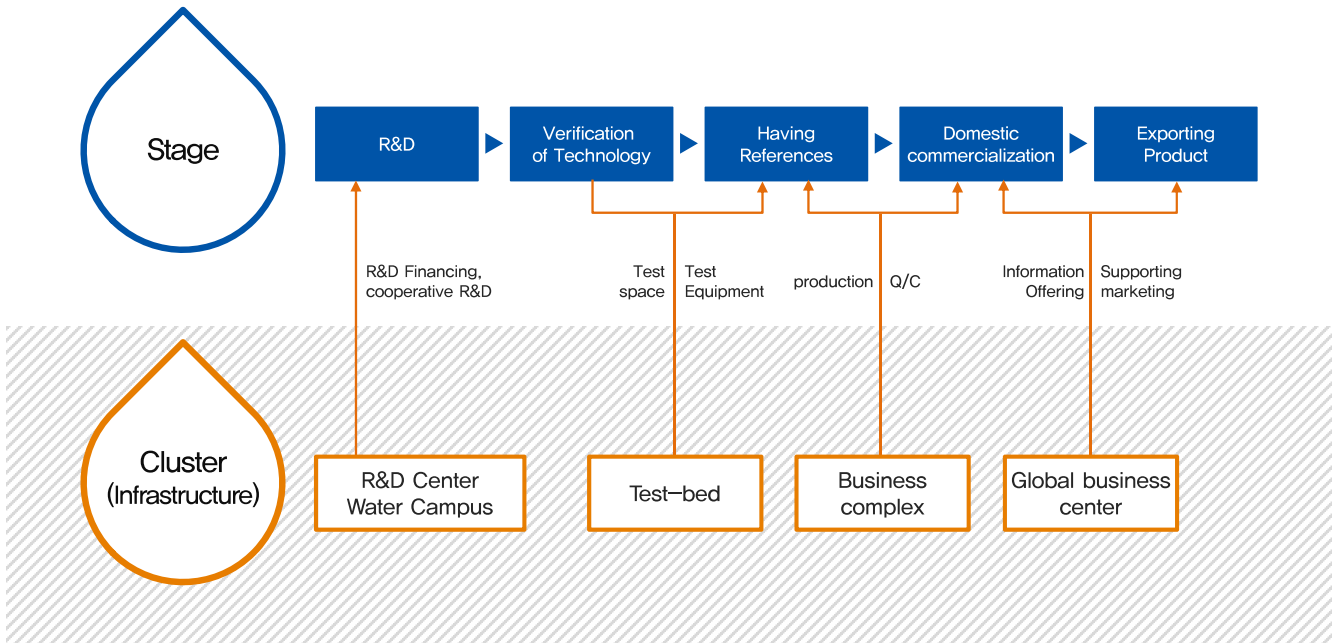


## Main Items

# Basic Concept



Purpose : To facilitate “**sustainable supporting infrastructures**” for companies to export their products and technologies



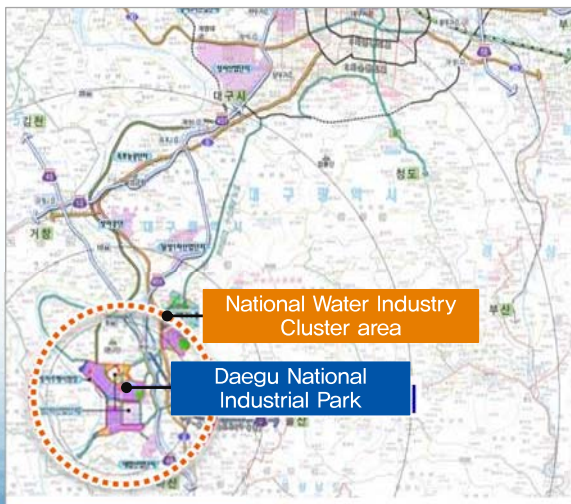
# Basic Concept



## Space Organization

Within Daegu National Industrial complex, it has 645Thous.m<sup>2</sup> area

- Ministry of Env. : Test-bed, Supporting facilities(A=145,209m<sup>2</sup>)
- Daegu city : Water Industrial Complex(A=503,870m<sup>2</sup>)





## Make one-stop service possible

**Test-bed**  
(80,000m<sup>2</sup>)

- Comprehensive water treatment TB (water, wastewater, pipeline)

**Supporting Facilities**  
(64,000m<sup>2</sup>)

- Water Industry Promotion Center
- Global Business Center
- R&D Center
- Water Campus

**Business complex**  
(503,870m<sup>2</sup>)

- Water firms are clustered
  - 100 big and middle sized firms
  - added value 280 billion won
- 2,800 creation of employment (KDI, 2014)



**Test-bed**  
(80,000m<sup>2</sup>)

**Supporting Facilities**  
(64,000m<sup>2</sup>)

**Business complex**  
(503,870m<sup>2</sup>)

## Overview

- Developing new technology and securing references
- Building and advanced water and wastewater treatment base
  - ➔ Test-Bed(TB) : water, wastewater, reuse
- Verification of domestic technology
  - ➔ Supporting from the government
- Cooperation with National Industrial Complex
  - ➔ Flexibility of operation and security of water quality



Test-bed  
(80,000m<sup>2</sup>)

Supporting  
Facilities  
(64,000m<sup>2</sup>)

Business  
complex  
(503,870m<sup>2</sup>)

## Overview

- Operation of cluster and supporting system
- Handling whole mechanism of cluster(Control Tower)

R&D Center	Water Industry Promotion Center	Water Campus	Global Business Center
<ul style="list-style-type: none"> <li>■ Management of R&amp;D</li> <li>■ Managing and supporting facilities</li> </ul>	<ul style="list-style-type: none"> <li>■ Cluster Operation</li> <li>■ Based on need analysis</li> </ul>	<ul style="list-style-type: none"> <li>■ Nurturing field-centered human resource</li> <li>■ Supporting R&amp;DB environment</li> </ul>	<ul style="list-style-type: none"> <li>■ Overseas Cooperation, Networking</li> <li>■ Exhibition, Advertisement, Marketing</li> <li>■ International meeting, Business Support</li> </ul>



Test-bed  
(80,000m<sup>2</sup>)

Supporting  
Facilities  
(64,000m<sup>2</sup>)

Business  
complex  
(503,870m<sup>2</sup>)

## Overview

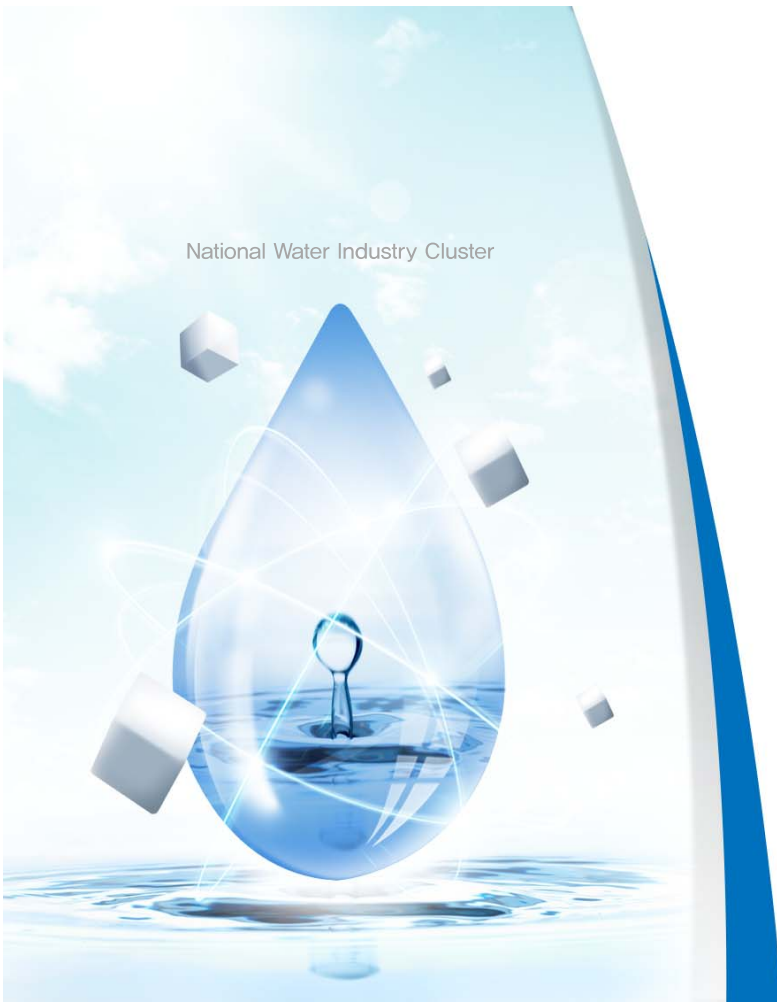
### Play a role as a circulation circle of water in cluster

- Organic supporting system with integrated companies
- Self-contained System(Developed technology → product → business)
- Responsible for part of BWC(Blue Water Circle)

Complex Introduction	Target companies
	<ul style="list-style-type: none"> <li>■ Purification, water related companies</li> <li>■ Wastewater treatment related companies</li> <li>■ Industrial waste water treatment related companies</li> <li>■ Sludge treatment and recycling company</li> <li>■ Other water-related companies</li> </ul>



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# Future Plans

## Legal & Institutional Establishment

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Future Plans



### 01 Legislation

- Legislation of National Water Cluster('15)



### 02 Optimal organization and Technology Supporting Center

- Composing optimized water cluster organization('15 ~ '16)
- Planning water and wastewater technology support organization('16)
- Conducting need analysis from Utilities and companies('16)
- 'Trouble-shooting On-site support' of the plants ('17~)



# Cluster based on the experts



## 03 Cluster based on experts of related-field



# Training Human Resources



## 04 Water Campus

- Leading to improve Water Cluster by R&D from Water Campus



### Function of Water Campus





## 04 Main Function

- **Market-oriented** institution of the public-private-partnership
- **Platform** for small-to-medium business to exporting technology and products
- **Global Cooperation Window** for improving global water welfare



## Further Plan



### Time Plan

Strategies	2015				2016				2017				2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Overall planning	█															
Deliberating turn-key construction bidding	█		█													
Elementary Design & Working Design			█													
Construction (Duration : 30months)						█										

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**Thank You**

